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(71)Name of Applicant :

1)Dr.V.P.Gladis Pushparathi

Address of Applicant :Professor, Dept Of CSE, Velammal Institute of technology, Chennai- Kolkata National highway, Panchetti, Ponneri, Thiruvallur(DT)-601204 ----- -----

2)Ms. B.Pavithra

3)Ms. Joice Ruby J

4)Deepika L

5)Gandhavalli Chaithanyasri

6)Likitha A

7)Muhammed Aflah T.A

8)Mohamed Faiz .M

9)Bhaskar Sharma .S

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Dr.V.P.Gladis Pushparathi

Address of Applicant :Professor, Dept Of CSE, Velammal Institute of technology, Chennai- Kolkata National highway, Panchetti, Ponneri, Thiruvallur(DT)-601204 ----- -----

2)Ms. B.Pavithra

Address of Applicant :Assistant Professor, Dept Of CSE, Velammal Institute of technology, Chennai - Kolkata National highway, Panchetti, Ponneri, Tiruvallur(DT)-601204 ----- -----

3)Ms. Joice Ruby J

Address of Applicant :Assistant Professor, Dept Of CSE, Velammal Institute of technology, Chennai - Kolkata National highway, Panchetti, Ponneri, Tiruvallur(DT)-601204 ----- -----

4)Deepika L

Address of Applicant :UG Scholar, Dept Of CS E, Velammal Institute of technology, Chennai-KolkataNationalhighway, Panchetti,ponneri,Thiruvallur(DT)-601204 ----- -----

5)Gandhavalli Chaithanyasri

Address of Applicant :UG Scholar, Dept Of CS E, Velammal Institute of technology, Chennai-KolkatanaNationalhighway, Panchetti,ponneri,Thiruvallur(DT)-601204 ----- -----

6)Likitha A

Address of Applicant :UG Scholar, Dept Of CS E, Velammal Institute of technology, Chennai-KolkatanaNationalhighway, Panchetti,ponneri,Thiruvallur(DT)-601204 ----- -----

7)Muhammed Aflah T.A

Address of Applicant :UG Scholar, Dept Of CSE, Velammal Institute of technology, Chennai-kolkottaNational highway, Panchetti, ponneri, Thiruvallur(DT)- 601204 ----- -----

8)Mohamed Faiz .M

Address of Applicant :UG Scholar, Dept Of CSE, Velammal Institute of technology, Chennai-kolkottaNational highway, Panchetti, ponneri, Thiruvallur(DT)- 601204 ----- -----

9)Bhaskar Sharma .S

Address of Applicant :UG Scholar, Dept Of CSE, Velammal Institute of technology, Chennai-kolkottaNational highway, Panchetti, ponneri, Thiruvallur(DT)- 601204 ----- -----

(57) Abstract :

This system introduces an advanced system tailored for the swift and precise identification of two-wheeler license plates, integrating cutting-edge techniques like connected component analysis (CCA) and template matching. The system's versatility extends to various applications, spanning from automatic toll collection to traffic law enforcement, parking lot access control, and road traffic monitoring. Central to its functionality is the utilization of AI-driven templates for character identification, enhancing both accuracy and efficiency in license plate recognition tasks. Noteworthy features include the model's simplicity and swift processing in number plate segmentation and character recognition, contributing to an overall enhanced system performance. This system represents a notable advancement in real-time vehicle plate detection, aligning closely with the concept of Advanced License Plate Recognition for theft vehicle detection. Key to the system's effectiveness is its reliance on AI-driven templates for character identification, which enables the system to adapt to diverse font styles and environmental factors. Furthermore, the model's simplicity and swift processing in number plate segmentation and character recognition streamline the workflow, facilitating real-time detection of vehicle plates with minimal latency.

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